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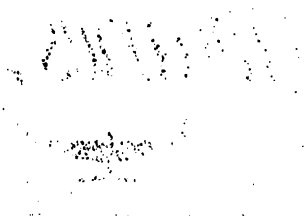

THE MONETARY AND BANKING PROBLEM

BY
LOGAN G. McPHERSON

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D. APPLETON AND COMPANY
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PUBLISHERS' NOTE.

AN article bearing the same title as this book, prepared during the past year for The Popular Science Monthly, was at the request of the editor of that magazine divided and expanded into two articles; the second of these, at his further suggestion, was subdivided, and the concluding portion amplified into a third article. These three essays appeared in the numbers of the magazine for May, June, and July of the current year, and, with some slight modifications, form the second, third, and fifth chapters of this book. The articles as they appeared elicited the praise of both economists and bankers. This confirmed the opinion of the publishers that their publication in a book, with other chapters necessary to complete the exposition of the subject in

popular form, would provide a desirable contribution toward the elucidation, both from the theoretical and the practical standpoints, of the problem the solution of which is the immediate and important task of the nation.

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THE MONETARY AND BANKING PROBLEM.

CHAPTER I.

INTRODUCTORY.

THE consideration of every problem concerning the welfare of humanity compels, first, the understanding of what constitutes that welfare. That is, recognition must be had of the factors that forward civilization, which is the condition that permits the attainment by each individual of the highest harmonious physical, mental, and moral development of which he is capable. To the highest physical life it is necessary that the body be nourished by a regular and sufficient supply of food; that it be protected

by appropriate clothing and properly housed; that it receive the exercise and the care and attendance that contribute to the maintenance of the bodily functions. To attain the highest mental life it is necessary that knowledge of that which mankind has said and done shall be brought to the mind of each individual to the extent that such knowledge will the more thoroughly adapt him to his environment and enable him to most effectively react upon that environment.

That which has made possible the civilization of to-day, and which must bring the higher civilization of the future, is the intertwining of human effort. That the human race may be fed, millions of individuals are raising wheat and milling flour; growing vegetables and fruit; killing cattle, hogs, sheep; curing and packing their meat: that the human race may be clothed, millions of individuals are picking, spinning, carding, weaving cotton, wool, silk, and flax, and fashioning their products into garments; tanning

hides and making shoes. That the human race may be housed, millions of individuals are felling trees, cutting, hewing, and shaping lumber, quarrying stone, burning brick. To provide fuel and light, millions of men are digging coal and drilling for oil. To provide the framework of massive structures and implements and appliances for house and mill and field, millions of men are digging ore; blasting, forging, casting, and turning the metals into shape. Millions of maids, cooks, and physicians contribute to the care and maintenance of the body. Millions of railway employees are engaged in the transportation of products and persons from places of supply to places of need, and the distribution of products enlists the efforts of millions of merchants and clerks. The transmission of intelligence engages the efforts of millions in the production of newspapers and books; contributing to mental gratification and elevation are the efforts of musicians, actors, painters, and sculptors. Engaged in all this work are by

far the greater portion of the adult male population and a considerable portion of the female population of the civilized world. Without the exchange of their effort the fabric of our civilization would be impossible. Not under any conceivable conditions could any one family supply its needs as those needs are supplied by the various producing and distributing agencies of to-day.

This intertwining of effort is nowhere separable; the result is the blood of civilization that, flowing through the arteries of commerce, connects the hemispheres. Europe and America eat the cattle and the wheat of the Western plains, wear the fabrics of England and France, and drink the tea of the Orient. The results of the researches of the German laboratory, of the inventor of whatever nation are utilized throughout the world, and books of whatever press penetrate to the households of every clime. Patti sings in San Francisco and St. Petersburg; Irving and Booth act in Berlin, Paris, Lon-

don, and New York. In public gallery and public park the masterpiece of painter and sculptor is seen by thousands, and, as reproduced by engraving and etching, is brought to the sight of thousands more. The English specialist discovers a remedy that all physicians use; the American lawyer collates, systematizes, and formulates a code that eases the burden of all litigation.

All who by work of hand or brain achieve results that contribute to the benefit of others receive from the efforts of others results that benefit them. It is evident that there must be a means for measuring and rewarding the effort of each, a means whereby each may obtain a portion of benefit from the totality of effort. This means whereby human effort is measured and rewarded, whereby the exchange of human effort is facilitated, is money.

The man of affairs, before taking the morning train that conveys him to his place of business, gives a penny to the boy at the station and receives in return a newspaper.

In exchange for that penny he receives knowledge of the happenings of the previous day, which may play a part in determining his course in connection with the production and distribution of commodities that may directly affect hundreds of workmen and thousands of consumers. The boy who receives the penny receives many other pennies, a portion of which accrues to him as his profit from the sale of the papers. The greater portion goes with hundreds of other pennies from each of hundreds of other boys to the office of the newspaper, where they form a considerable portion of the fund that pays for the paper whereon, and the ink, type, and presses wherewith, the newspaper is printed; that goes in wages and salaries to the foreman, compositors, correspondents and editors. The portion of this fund that goes to the manufacturers of ink, paper, and presses contributes to their profits and to the wages and salaries of the workmen employed by them. Portions of the wages and salaries of foreman, composi-

tors, correspondents and editors, and of the workmen that make ink, paper, and presses, are in turn paid by them to dealers in shoes, hats, clothes, meat, flour and potatoes, coal, furniture, carpets and so on. The dealers in these commodities make remittances to the manufacturers, who in turn pay wages to the workmen who produce shoes, hats, and clothes; to the killers of cattle; the packers and shippers of meat; the raisers of wheat and millers of flour; the miners of coal; the makers of furniture and the weavers of carpets. Each is a purchaser of products that all are concerned in producing. The money that goes to each as a reward for his efforts is distributed through various channels to all others as a portion of the reward for their efforts. The exchange of the penny and the paper between the man and the newsboy is one of a myriad of exchanges between man and man that are interlinked one with the other in bringing to each a portion of the benefit of the efforts of all the others.

No product of earth or sea is of use to man until human effort has plucked and shaped and carried it to place of need. When this plucking, shaping, and carrying is not the effort of one man exclusively for his own use there is the exchange of effort.

Even land itself, for the right to use and to control portions of which great sums of money are often paid, is of monetary value only as its control is protected by human effort, its products are exchanged by human effort, or its location ministers to the exchange of human effort. The frontiersman in an undeveloped, ownerless wilderness must protect by his own might the land to which he lays claim. As that land is brought within national limits and subjected to national laws, it acquires value by reason of the efforts of those employed in its government and defence. As it becomes populated its value increases because of the readiness with which its products may be exchanged, and in towns and cities land in business cen-

tres often is of enormous value because of the great and rapid exchanges of human effort between the throngs that frequent the buildings erected upon it.

CHAPTER II.

THE DEVELOPMENT OF THE MONETARY PROBLEM.

As human effort has become the more closely interwoven, the means whereby it is measured and rewarded, whereby its results are exchanged, has developed with the necessity for becoming the more adapted to its purpose.

In prehistoric time, the man whose home was a cave, whose clothing was the untanned skins of beasts, and whose food their flesh and berries and fruit, knew not money and needed not money—the satisfaction of his wants resulted immediately and directly from his own exertion. And so likewise throughout the untold years during which he learned to cook with fire made by the spark of flint

and to fashion the flint into spear heads, he needed not of the effort of others. But through the ages, as his developing brain led his hands to other uses, as he learned to mould and harden the clay into pots, to fashion and wield the oar, to weave the bands of willow into mat and basket, it became impossible for any one man to accomplish for himself all that man had learned to do. There was division of labour, first perhaps between a man and the women of his household, but in time the efforts of the members of any one family alone became impossible to supply its wants. There was a further division of labour, and the exchange of the results of effort is the more marked as the division of labour increases. When one man traded pots of clay to another for flesh obtained in the chase, the efforts of the one in digging, moulding, and baking were exchanged for the efforts of the other in hunting, killing, and delivering the game. This was barter and barter, or the exchange of effort as embodied in desired commodities, without the intervention of

other commodities, endured over much of the earth for centuries, complicated by the customs of slavery, feudalism, and absolutism. But as man learned in a greater number of ways to produce a greater variety of articles, barter became inadequate to effect their exchange. A weaver might want a bow and a dozen arrows, and a maker of bows and arrows might want a bolt of cloth; but the weaver, perceiving that he had to work six days to make the cloth, while six bows and as many dozen arrows might be made in that time, of material no more difficult to obtain and by a man no more skilful than himself, would properly refuse to exchange the cloth for fewer than that number of bows and arrows—that is, a bolt of cloth would be worth six bows and six dozen arrows. If, however, the exchange were so made, the weaver would have five bows and five dozen arrows which he did not need. He, therefore, would not obtain the reward for his own use of his effort in producing the bolt of cloth until he had exchanged the five

bows and five dozen arrows for articles that he could use. Consequently, if barter were persisted in, each purchaser would accumulate a number of articles of different kinds for which he had no need, and he might have no place wherein to store them. Each producer would be endeavouring to exchange articles made by every other producer, and so have his time absorbed that his efforts in production would be lessened. The process of exchange would be of inextricable confusion. If, however, there were some one commodity for which each producer would readily exchange his products at any time, so that, therefore, each person could at any time exchange this commodity for any other commodity that he might need, the process of exchange would be simplified. It is evident that such a commodity must occupy little space, so that it could be readily stored, that it must not be perishable, and that it must be so divisible that different portions of it might be exchanged for different commodities in proportion to their value—that

is, in proportion to such quantity of the commodity as might be accepted by the seller for and yielded by the buyer to obtain the article exchanged. Such a commodity used for the convenience of exchange is money; and all peoples who at different places on the earth's surface at different times have step by step risen from barbarism through barter have made use of money. Different commodities at different places and with different peoples have served for this purpose—skins with one tribe, shells with another, beads with another, and even in our own country, within the last two hundred years, the leaves of the tobacco plant. But no other substances known to man have so completely possessed the attributes of permanence of form, durability, and divisibility as the metals; and therefore lead, tin, copper, silver, and gold have been very extensively used as money.

Another characteristic essential for a commodity used as money is its acceptability, not only among the persons of a partic-

ular locality, whose efforts are interchanged, but among the people of all localities whose efforts are interchanged. The shells accepted by the members of one tribe might not be acceptable as money by the members of another tribe among whom skins were used for that purpose. If the members of the tribe using shells as money wove mats and moulded pots, which were acceptable for exchange for tools made by the tribe using skins as money, and the money of neither tribe were acceptable to members of the other, there would be direct barter of the tools of one tribe for the mats and pots of the other. But as barter between individuals of one locality results in confusion, so also does barter between individuals of different localities, and the confusion in the processes of exchange by barter becomes the more inextricable as an increasing number of people in an increasing number of localities produce an increasing number of articles acceptable for exchange among the different peoples of the different localities. With the

extension of intercourse between tribe and tribe, race and race, has therefore increased the tendency toward the use as money of commodities acceptable as money over the more extended territory occupied by the peoples whose efforts were interchanged. With the increase of this tendency the use of metals as money increased. They have been found in nearly all parts of the earth, and because of their general acceptability—that is, because of a certain common estimation in which they have been held—they have attained to a degree of uniformity of value, which has the more nearly approximated perfect uniformity of value as the use of metals as money has become restricted to the metals meeting in greatest degree the requirements of money, which are silver and gold. And as the common needs of similarly situated groups of people have resulted in the formation of the more or less coherent bodies known as states and nations, the use of gold and silver as money has the more extensively been sustained by coinage—that

is, the weight and fineness, and therefore to a degree the value of different portions of these metals have been evidenced by the stamp of the administrative bodies of states and nations, and this use of gold and silver has been enhanced by their exquisite lustre.

As commodities were exchanged in larger volume, metals of the greatest value were coined—that is, the fewer the exchanges of human effort the less the necessity for other than a bulky medium of exchange. A weaver of baskets making but one or two a day might be satisfied with payment in coins of copper: if he progressed to the employ of workmen making fifteen or twenty baskets a day, he would find that the acceptance of copper coins in payment for his wares would keep him burdened with a mass of that metal; he would eagerly accept silver characterized by greater value in less bulk. And so in all vocations the greater the production and the distribution of commodities the greater the demand for a medium of exchange embodying the greatest value in the

least bulk. This tendency is clearly shown by history. The extensions of intercourse between races incident to the conquests of Philip and Alexander were marked by the coinage of gold. At the time of the decemvirs the Romans passed from barter to the use of copper coins; as their commerce increased, the southern settlements along the sea made use of silver; and, finally, after gold bullion had long been the medium of exchange in Eastern commerce, Julius Cæsar opened the mints to gold. After the submersion of the Roman Empire the coinage of gold was not resumed until the florin was issued at Florence in 1252, the extensive commerce initiated by the Crusades demanding a more valuable medium than silver. As the adoption of the most valuable commodity as a means of exchange is coincident with the increase of the exchange of the results of human effort, with the increase in the production and the distribution of commodities, it follows that the most valuable means of exchange is used in those

communities that are the best fed, the best clothed, the best housed—that is, the use of the most valuable means of exchange is characteristic of an advanced civilization. This is proved not only by history, but by a survey of the world of to-day. The tribes in out-of-the-way regions that still use money made of lead, copper, and tin are in a semibarbarous state, poorly fed, scantily clothed, badly housed, and without practice or knowledge of the higher arts. And the peoples of South America and the Orient who have not advanced beyond the use of silver are physically, mentally and morally inferior to the Caucasian races whose use of gold began before the Christian era.

The different weights, sizes, and shapes of coins made by different nations, the different units of value by which they have been measured, and the different languages in which their values have been expressed, have caused much confusion as different tribes, races, and nations have passed beyond restricted intercourse between their own

members to commercial intercourse one with the other, or, rather, as individuals of particular tribes, races, and nations have undertaken commercial intercourse with individuals of other tribes, races, and nations. Hence the money changers of antiquity, the remote forerunners of bankers who arrange international exchanges to-day. Strikingly illustrative of the need for the money changer is the condition of Venice in the twelfth century. "The coin in circulation was in many respects a nuisance of the most vexatious kind. It consisted not only of the variety which the mints of Italy at all times afforded, but of that vastly increased variety which had accumulated from the coinage of more than a century. Besides this multiplicity of the new and old coins of Italy was the coinage of many countries of the far East with which Venice carried on a vast commerce. To make all the payments of the domestic and foreign trade of Venice in these coins—of different degrees of purity, and many of them much deteriorated by

wear—required time, patience, and skill which but few merchants could adequately command." And J. Schoenhof writes as follows of his own experience of but forty years ago in Germany: "To send a money package of a few hundred florins from Carlsruhe or Baden-Baden (where the moneys were still more varied) to Saxony, for instance, required the conversion of florins and of half a dozen of the subsidiary coins of the South German monetary system into thalers, the monetary standard of North Germany. Then came the Austrian florin, the German kleinthaler, the kronenthaler, the conventions-thaler, the Brabanter thaler—all different from the Prussian thaler. The franc and the five-franc piece had quite a circulation in that part of Germany, as well as the money of Switzerland. They were all included in the different statements that had to accompany the remittance. But these were only the larger silver coins. Many five- and ten-florin rolls had to be made up of three- and six-kreutzer pieces—two and

four cents respectively. These had to be carefully counted, sorted, and packed. Many a spurious piece was apt to steal in if not carefully watched. The dreibaetzner (twelve kreutzers = eight cents) and the sechsbaetzner (twenty-four kreutzers = sixteen cents), in rolls of ten and twenty florins, were not insignificant parts of these mail remittances. The gold coins had to be handled in the same way. There were the frederic d'or, the louis- or napoleon d'or, the ducat of Austria, the five- and ten-florin piece, and several other gold coins, which went all into the general column, and had to come out in the final summary as so many thalers if going to a thaler country, or as so many florins if to a florin country. It is easy to imagine that so kaleidoscopic a currency gave quite a good schooling to the commercial aspirant charged with the duty of reducing the heterogeneous elements to uniformity. But this was nothing compared to conditions existing before the establishment of the North German and South German coinage unions. That under

such conditions the money changer had a very prominent and lucrative position in the republic of commerce can well be understood. Many of the great banking houses of Frankfurt and other places of the present day were known in my time either actually or traditionally by that name."

But with the combination and recombination of tribes and races under governments, whose administration has extended over considerable areas, the monetary systems have become correspondingly fewer and coins of the different nations have the more nearly approached uniformity in shape, weight, size, and value. A most striking instance of this is the imperial coinage of the German Empire, which supplanted seventy different coinage systems of the combined states.

But even the precious metals, although they satisfy the requirements for money better than any other commodities, do not meet those requirements in perfection.

In the first place, the amount of silver

and gold in existence at any one time is never in the same proportion to the volume and value of the exchanges of that time as it is to the volume and value of exchanges at other times—that is, the volume of gold and silver does not expand and contract in exact accord with the expansion and contraction of commerce. Nor is it conceivable that the rapidity of circulation of either gold or silver varies in exact ratio with the variations of trade. The growth of commerce, for example, that began in Europe during the thirteenth century, so far outstripped the increase in the supply of the precious metals that each of the petty states and principalities was in a continual fight with the others for the possession of a sufficient supply of gold and silver whereby the exchange of effort as evidenced by the exchange of commodities between its own subjects could be rewarded. The world's product of gold was nearly four times as great in 1850–'60 as during the preceding decade; it was about twenty-five per cent

less in 1880–'90, and during the present decade promises to exceed that of 1880–'90 by one hundred per cent.

And the supply of neither metal increases in the same ratio as the other; therefore, that pursuit after a constant ratio between gold and silver which has continued to this day is vain as the cruise of the Flying Dutchman.

And as it is estimated that at the present time actual coin passes in less than ten per cent of the exchanges, it is significant that a medium of exchange has largely taken the place of coins. This medium consists of paper representatives of value.

And again, the quantity even of gold necessary to effect any considerable exchange is of such weight that its transportation is a matter of inconvenience, and for any person or association of persons to keep safely on hand all the gold that might be amassed at any one time would necessitate expensive precaution. Obviously these inconveniences are avoided by the deposit of

silver or gold coin or bullion in the charge of a person or persons responsible for its safe keeping, and for its transfer from the owner to another as he may direct. Hence banks of deposit and payment by cheque, the use as money of paper representatives of money. For if B is willing to accept the cheque of A upon banker C in the belief that he can obtain the money for which it calls upon presentation, why should not D accept the same cheque from B upon B's assurance that it is good?

If A, buying merchandise from B, says that he will have the money wherewith to pay for it when he has resold the merchandise, or at the end of a particular time, B may be willing to accept his written promise to pay; usually, however, with a stipulation that A surrender an additional sum as compensation to B for waiting for the payment. This sum is interest. And upon B's guarantee that the promise is good, D may be willing to accept the promise from B as payment for other merchandise. Or if B

need the money in advance of the time specified in A's promise to pay, he may perhaps deliver the promise to D in return for the money. Or, as would be more likely, he would seek to obtain the money from banker C in exchange for the promise of A guaranteed by himself. It is obvious that should D or banker C pay to B the full amount of money specified in the promise of A, he would be dispossessed thereof from the time it was given to B until it was repaid by B—that is, he would have rendered a service without compensation. It is equally obvious that compensation would be obtained if a portion of the sum specified in the promise were withheld by C. This sum is the discount. Banker C, by making a practice of thus advancing money on such promises, may obtain a considerable revenue. Hence banks of discount.

There are banks which not only make money by discounting from the amount of deposits over and above what they estimate will be required for daily needs, but which

issue promises to pay in the form of bank notes, the funds available for use in discounting being thereby increased. Hence banks of circulation.

The development of banks, therefore, has been from simple repositories of the commodity used as a medium of exchange into purveyors of the currency that is superseding coin, the providers of funds for commercial transactions, and the centres through which instruments of exchange are balanced.

Besides the cheques and promissory notes issued by individuals, which have a limited circulation, and the notes issued by banks, which have a more extended circulation, there are notes issued directly by governments that circulate generally among their peoples. As, however, the precious metals are the only commodities generally accepted as money throughout the world, all promises to pay are based upon one or another of them, but the aggregate of value represented by these promises to pay is so great

that their fulfilment at any one time in coin or bullion would be impossible, the ratio between the volume of exchanges effected by the use of paper representatives of money to the volume effected by coin or bullion itself being, as has been said, greater than nine to one.

This fact, that the total value called for by the paper representatives of value at any time in existence, although expressed in terms of the units of value originally designating coins, vastly exceeds the value of the metals as coined or held in bullion by the sources whence coins are issued, together with the fact that no man willingly and knowingly exchanges commodities for paper representatives of value without believing that he can obtain the worth called for by these representatives, leads to the perception that, after all, it is not the metals, however precious, but property of all kinds that is their basis, and that these paper representatives of value are superseding coins in designating and measuring the value of the commodities for

which they are exchanged. And as the value of commodities depends upon the efforts expended, under the law of supply and demand, in producing and delivering them at the place of need, the ultimate function of paper representatives of value is to measure and reward human effort.

By way of example, let it be supposed that a tailor sells a suit of clothes and receives in payment therefor a cheque for, say, fifty dollars. He deposits that cheque in a bank in the belief that he can obtain a definite worth for it in whatever commodities or services he may choose to invest it, and the bank likewise accepts and places it to his credit, in the belief in the ability of the signer and indorser to produce commodities or services of the value for which it calls. If the tailor buys a set of furniture and gives his cheque for fifty dollars therefor, what he has done has been to exchange the value of cloth as measured, cut, sewed, and trimmed into particular shape for timber, cut, joined, and varnished into a particular

shape of what he deems an equal value. The value of the efforts of men expended in producing the clothes has been balanced against the value of the efforts of men expended in producing the furniture. If fifty dollars in coin were received for the clothes and given for the furniture, the effort expended in producing the clothes would be measured against the effort expended in producing the furniture, by the use of an intermediate commodity; if a cheque were received for the clothes and a cheque paid for the furniture, effort would be measured against effort by means of paper representatives of value through the agency of a bank. If the tailor, instead of purchasing furniture worth fifty dollars, purchased a number of articles aggregating fifty dollars in value, the result is the same. The efforts of men in producing the number of articles have been measured against the efforts of men in producing the suit of clothes, and this is the function performed by money in every exchange, whether great or small, and whether

the money is coin or a paper representative of value. Effort as expressed by result is measured against other effort as expressed by other result.

The test of the efficiency of a paper representative of value, therefore, is the extent to which it can be exchanged for the value which it expresses. But as the value of a paper representative of value is expressed in terms that also express the value of coins, it is a measure of so much value as is represented by the coins, and a paper representative of value is at present almost universally considered as such only to the extent that it is the representative of coin. A certain amount of coin, or the bullion from which it is derived, has a definite and known value as coin or bullion, without qualification or condition, throughout civilization, but a piece of paper representing the value of that amount of coin or bullion considered simply as paper, whether covered by writing or impressed by an engraved block, is without intrinsic value. That is, for exam-

ple, twenty-nine grammes, 448·025 grains, of fine gold, whether in bullion or coined into a hundred-franc piece, can readily be exchanged throughout Europe and almost as readily throughout America for an approximately similar amount of commodities; but a piece of paper known as a National Bank of Belgium one-hundred-franc note can be exchanged for commodities to this value only among peoples who feel confident that it can readily be exchanged again in return for commodities to the value of one hundred francs, and such peoples in great numbers do not exist outside the kingdom of Belgium, because other than the Belgian people are not generally familiar with the language in which the note is printed, and therefore do not understand the value of the units of value in which the note is expressed, and they are not sufficiently familiar with the Belgian banking system to know that the note is secure—that is, that twenty-nine grammes, 448·025 grains, of fine gold, can readily be obtained for it. The extent to

which a paper representative of value, which in itself has no intrinsic value as a commodity, will circulate (leaving out of consideration force of habit or custom which is a considerable factor in maintaining in some countries the circulation of inadequately secured and depreciated paper currency) is therefore at present determined by the number of people who believe that it can readily be exchanged for coin or bullion to the value expressed by it. Essential to this belief is confidence in the honesty and ability of the issuer. Therefore, when a people among whom paper representatives of money have been freely circulating begin to lose confidence in their ability to readily exchange them for the coin for which they call, there arises a tendency to exchange commodities and services only for coin. As this tendency increases as the lack of confidence in the paper grows, there is soon reached a time when the exchange of commodities and services is greatly diminished, because there is only sufficient coin in exist-

ence to effect a small fraction of the normal value of exchanges.

But as measures of value in the last analysis are measures of human effort as determined by its results, it is obvious that were every paper representative of value so secured that the holder thereof might be certain that at any time he could obtain in exchange for it the result of human effort to the measure of the value called for by it, in a form acceptable to him, such paper representatives of value would obtain free and general circulation among all people believing in their security. The more extended the territory throughout which, and the greater the number of people among whom, such a currency would circulate, the less would be the need over such territory for the use of bullion or coin as money or the basis of paper representatives of value. And the monetary systems of the peoples among whom commerce has obtained the greatest development are gradually reaching such a basis. The paper representatives of

value, which at first were direct representatives of coin, are tending more and more to become the representatives of value, as expressed by the result of effort, without the intervention of coin, and in the furtherance of this tendency banks perform an essential part. In the evolution of the social organism banks become the ganglia through which the action of the different parts of the organism is measured and made reciprocal.

And as the use of bank notes, cheques, bills of exchange, government notes, and other paper representatives of value is most marked among the peoples through whose exertions commerce has attained its highest development, so also the members of a highly civilized community most concerned in commerce make greater use of these paper representatives of value than other members of such a community. In any large city the transactions of the principal manufacturers and merchants are chiefly conducted by means of cheques, bills, and notes, while clerks, artisans, and labourers,

who are principally paid in coin or the direct representatives of coin, secure needed commodities by the immediate exchange of coin or the direct representatives of coin for them. The development of representatives of value not based upon coin to the extent of rendering them generally acceptable for exchange among clerks, artisans, and labourers would still further decrease the dependence upon coin or bullion as money or the basis of money, leaving coin and bullion freer for use in effecting exchanges between peoples of different nationalities who are so separated by language, habits, or institutions that commercial intercourse between them must be upon a bullion basis.

CHAPTER III.

THE MONETARY PROBLEM.

As has been perceived, it is by the constant exchange of human effort that human welfare is promoted, and therefore is necessarily a means whereby each portion of effort contributing to the total welfare may be measured and rewarded. This means or medium of exchange is money, and its development has been as follows:

First, there was barter, or the direct exchange of commodity for commodity. Next, there was the disposal of commodities in exchange for a generally acceptable and readily disposed of commodity, the first form of money. By reason of their suitability, one or another of the metals becomes generally used as such a commodity, and as commodi-

ties are exchanged in larger volume, metals of the greatest value are coined. Then, there is the use of paper promises to pay coin issued from various sources and accepted to the extent that their security is believed in. Then these representatives of coin gradually pass into paper representatives of value, as evidenced by the result of effort, and by means of banks paper representatives of value are offset against other paper representatives of value without the intervention of coin at all.

But the progression through barter and the use of metals as money to the use of paper representatives of value has not been uniform either in time or place. There are still tribes in out-of-the-way regions who make rude exchanges by barter, and there are races between the individuals of whom the exchange of effort is uncertain and irregular, whose currencies are composed almost exclusively of lead, tin, copper, and iron. There are not only marked points of difference between the monetary systems of dif-

ferent nations, but in many instances one and the same nation still uses coins of different metals, of different weights, and different degrees of fineness, the values of which are not in definite regular ratio, and notably in the United States there are paper currencies issued from different sources and resting upon different bases.

The money in circulation in the United States amounts to between one and a half and one and three-quarter billions of dollars, divided approximately as follows: Nickel and copper coins, twenty millions of dollars; silver coin, one hundred and twenty millions of dollars; gold coin, four hundred and eighty millions of dollars; paper currency, one thousand millions of dollars.

Statistics gathered by the Comptroller of the Currency show that, of the receipts of national banks, cheques form an average of about ninety per cent, only about ten per cent being composed of paper currency and coin. Other statistics, also gathered by the Comptroller of the Currency, show that in

retail transactions throughout the United States the medium of exchange is composed, on an average, to the extent of about forty per cent of cheques and sixty per cent of paper currency and coin. The smaller retail transactions are effected almost entirely by the use of coin; as the transactions become of greater value, the more does paper currency enter into them; as their value further increases, the greater is the use of cheques, and transactions of magnitude between different localities are settled by drafts and bills of exchange.

This progression in the medium of exchange, corresponding with the progression in value of coexistent transactions, agrees with the progression in the medium of exchange in correspondence with the progression in value of transactions as they have developed throughout history, and makes manifest the fact that the most important monetary factors at present are paper representatives of value, consisting, first, of bank notes or government notes circulating gen-

erally as currency, issued under government regulation and secured upon widely known bases; second, of cheques, drafts, promissory notes, bills of exchange, and other instruments depending for their security upon the resources of the drawers and indorsers, the extent of which is not generally known.

As these paper representatives of value form by far the greater portion of the medium of exchange, the most important point of the monetary problem is raised by the question—

How may paper representatives of value be secured, to most satisfactorily meet the requirements of a medium of exchange?

Let the conditions incident to the issue and acceptance of a paper representative of value in a simple case be considered. When, a few years ago, a humble labourer, bereft of home, property, and family, by the Johnstown flood, applied to the manager of a Pittsburg mill for work, he was provided with some immediate necessaries in exchange for his duebill, which called for five

dollars. That duebill was practically his promise to expend effort in the service of the mill, to balance the efforts of others expended in producing the necessities provided him, and the manager accepted it in the belief that the labourer's effort to that value would be forthcoming. That duebill was returned to the labourer the next pay day as part of his wages, its purpose having been effected without the use of coin or bullion.

It will be perceived that the duebill, the representative of value in this instance, was accepted—

1. Because the acceptor believed in the ability of the issuer to produce desired result of human effort to the value called for by it.

2. Because the acceptor believed in the intention of the issuer to produce desired result of human effort to the value called for by it.

3. Because the value of the effort called for was definitely understood between the issuer and the acceptor, the unit of the

measure of that value being one dollar, and the total measure of that value five dollars.

The duebill could not have been given general circulation, because not many people would have been confident that its value would be forthcoming. This lack of confidence may have proceeded from ignorance of the ability and intention of the issuer through lack of acquaintance with him, or from doubt in the minds of those acquainted with him as to his ability and intention. If, however, the promise of the labourer had been re-enforced by the promise of the manager that he would make its value good if the labourer did not, the duebill doubtless could have been given a certain circulation among those having knowledge of the manager's honesty and resources, and believing in the genuineness of his indorsement.

In other communities, however, among persons knowing neither the labourer nor the manager, circulation for the duebill could not have been expected. A repre-

sentative of value, therefore, to have wide circulation, must be issued and assured from a source widely known to be able and honest in the intention to produce the result of effort to the value for which it calls.

As it is by transition from the use of coin that paper representatives of value come into use, they are at first usually direct representatives of coin, and are generally accepted on the assurance that they can readily be exchanged for the amount of coin for which they call. This assurance is nearly always given by a government directly or indirectly. If it be required that gold, to the full value specified by circulating notes, be held as a basis for a paper currency, such a currency will never be adequate to supply the monetary needs of so vast a nation as the United States. It is doubtful that even the vast increase, both present and prospective, in the production of gold will yield a supply, the proportion of which coming to the United States would be sufficient for its monetary needs under such a requirement.

To the evils of a paper currency issued against silver, reference will be made hereinafter.

If paper currency apparently based upon gold be issued to a value greatly in excess of that of the gold held for its redemption, the excess of the currency above the gold, in the absence of other guarantee of its security, is speculative and unstable. If a guarantee of its security other than gold or other metal in coin or bullion be given, a new factor enters into the monetary sphere.

The United States bonds are promises to pay, based upon the ability of the Government of the United States to obtain the result of human effort to the extent of their value by the power of taxation; and as a United States national bank is required to deposit numbers of these bonds as a basis for the bank notes issued by it, the security for these notes is really the Government's power of taxation, or ultimately the result of human effort elicited by the use of that power. A considerable portion of the security for

the notes of the Bank of England consists of indebtedness of the nation to the bank; and the Dominion notes of Canada are largely based upon the Government's indebtedness. A new factor supplementing and superseding gold as the basis for monetary issue is therefore the assurance of the result of human effort to the extent necessary to maintain the expressed value of the currency.

To perceive that a paper representative of value so secured will perform every function of a coin of equal value needs only an instant's reflection. A five-dollar national bank note, for example, one of hundreds of such notes, drawn from a bank by the paymaster of a woollen mill, may be paid to one of the operatives as the measure and reward in part of the expenditure of his effort in guiding the loom. It may be paid by him to his grocer, thereby measuring and rewarding in part the efforts of men expended in producing and bringing to him potatoes, flour, coffee, sugar, bacon. It may be paid by the grocer to his landlord, and so

measure and reward him in part for effort expended under his direction in erecting and finishing the building containing the grocery. It may be paid by the landlord to a servant, as the measure and reward of effort expended in keeping his house clean and preparing food for his family. It may be given by her to a shoe dealer, measuring and rewarding in part the efforts of men expended in killing cattle, tanning hides, working them into shoes, and bringing the shoes to the store whence she obtained them. And thus that five-dollar bill may go round and round until it is deposited by some recipient in a bank, whence it may emerge and perform round after round of other service, and so on perhaps for years. In all its circuits, the thought of exchanging it for gold or silver may not enter the mind of a single person through whose hands it passes. It measures and rewards human effort; it is generally accepted because its recipients have ample confidence in the assurance of the bank, guaranteed by the Government that its value,

as expressed on its face, will be preserved and maintained. They have confidence in the ability of the issuer to that end; they have confidence in the intention of the issuer to that end. The measure of value expressed by five dollars is definitely understood by them.

If other proof is required that neither coin nor bullion is essentially necessary to effect the exchange of human effort, attention need only be called to the emergency currency brought into existence by the currency famine of August and September, 1893. Clearing-house certificates, clearing-house duebills, certified cheques, pay cheques, negotiable certificates of deposit, bond certificates, grain-purchase notes, store orders, improvement fund orders, teachers' warrants, and shingle scrip sprang into being and measurably facilitated the exchange of human effort in many localities, especially in the West and Southwest, where hindrance to the operation of mills, mines, and stores would have been far more disastrous

had there been nothing to take the place of the ordinary currency of the nation. These instruments in each instance were paper representatives of value as evidenced by the result of human effort; they each attained a circulation among those believing in the intention and ability of the issuers to make their expressed value good.

As it is by use of the results of human effort that further effort is made possible, as it is to obtain the result of human effort that human effort is put forth, what more logical, what more inevitable, than that the medium whereby human effort is exchanged, whereby it is measured and rewarded, be based upon the results of human effort? That is, it is by the exchange of human effort that we are fed and housed and clothed. It is by use of houses, food, and clothing that we are enabled to construct machines, build bridges and railroads. By the use of machines, bridges, and railroads other houses are built, other food, other clothing is prepared and distributed. To obtain houses,

food, and clothing our effort is put forth. The medium which rewards us should assure us the possession of that for which we toil. As it is human effort that supplies human wants, and as human effort is known by its results, the medium of exchange and measure of value should be based directly upon the results of human effort—that is, effort of a certain quantity and quality, as evidenced by its result, should be rewarded by that which, under the law of supply and demand, will assure the possession of the result of other human effort of a certain quantity and quality in an acceptable form. Human effort should be measured by human effort, not by any one commodity, however precious, the supply of which is inconstant; human effort should be rewarded by human effort, not by any one commodity, however precious, the value of which is unstable. The attainment of this end is the final step of that evolution which began with barter, and through the use of coin and paper representatives of coin we

are taking that step so gradually that we notice not its meaning.

Obviously it must not be that the assurance of reward be based upon the result of human effort, as evidenced solely by any one commodity. Cloth, corn, leather, each varies in quantity from year to year, and the supply is not always in the same ratio to the demand—that is, neither one of these commodities is of a definite value that is permanent. This same objection applies, but in greater degree, to both gold and silver. The assurance of the reward of human effort must not be based solely upon the result of human effort as embodied in houses, mills, factories, railways, canals, ships, machinery, for these structures are not indestructible. Even those that endure for centuries may fluctuate in value as they increase or decrease in their capacity for service to society because of change in the currents of the law of supply and demand, or as they are honestly and capably or dishonestly and incapably managed. As it is for the results

of human effort in all their varied forms that the aggregate of human effort is put forth, its reward should be the assurance of a given measure of effort as embodied in desired results.

A paper currency, therefore, should be based directly upon the assurance of the result of human effort to make its value good unqualifiedly and unconditionally; and that it may attain the utmost confidence, such assurance must be universally known to be sufficient and reliable. This can only be when a group of people, the members of which, perceiving a secure currency to be vital to their prosperity, combine in giving that assurance. Such a group of people cohering by the force of common need, constituting a state or nation, can give assurance of their combined effort through enactment of their administrative body known as the government. The instrument whereby that enactment can be made good is the power of taxation, which is the power of the government to take from its people a portion of

their effort for the attainment of ends necessary to their common good. The acceptance of such a currency among a people will depend in natural course upon the degree of their coherence as evidenced by their confidence in the honesty and ability of their own government to make the currency good, and also upon the knowledge of the values represented by the different representatives of value constituting the currency. Its acceptance among other people will depend also upon the facility with which it can be exchanged for currency in general use in their countries.

That a paper representative of value, resting upon the power of taxation, may attain a high degree of confidence is evidenced by the United States bonds themselves which are eagerly sought throughout Europe and America; and the national bank notes, which rest upon the same basis as the bonds, are readily accepted throughout the entire country. But there is a respect wherein the provision for currency, if limited to the

issue of bank notes secured by Government bonds deposited by the issuing source, has been seriously defective. In every country, and especially in one covering so extensive a territory and with such varied resources as the United States, the processes of production and distribution do not proceed with evenness and regularity week by week, month by month, or year by year. In the spring, great quantities of fruit are shipped North from the semitropical lands of the South; in the autumn, innumerable train loads and vast cargoes of grain come from the Western plains to the Atlantic seaboard; the great mills and factories in every line of industry are busier at one time of the year than another. Currency is therefore needed in greater abundance at the times of greater activity than during the periods of comparative dulness. If there be sufficient national bank notes for the times of activity, there is during the times of dulness a plethora which is an incentive to overtrading and speculation. If their issue is only sufficient

for the ordinary needs of exchange, there is a scarcity at the times of greater demand, with the result that exchange is hindered, the processes of industry retarded; that is, the currency provided by our present national bank note system is not elastic, and the restrictions imposed by the Government have made its issue so little profitable that the banks are often loath to increase the supply, which at the present amounts to but about two hundred millions of dollars.

The paper currency of the United States issued directly by the Government is composed principally of United States notes, the "legal-tender" legacies of the war, to the extent of $346,000,000, which, like the bonds, are based directly upon the power of taxation; certificates issued directly against and redeemable in silver to the amount of $345,000,000; Treasury notes issued against silver, but redeemable in either gold or silver, to the extent of $137,000,000; and certificates issued directly against and redeemable exclusively in gold to the extent

of $50,000,000. The lack of elasticity is an objection to each of these issues of currency, and that they are open to other objections recent discussion has made evident. Gold, the standard of value in international exchange, has for many years exceeded silver in value in greater ratio than that deemed by the United States to exist between them. As it has been the declared intention of the Government to keep all the paper currencies issued by it of the same value as though they had been issued against gold, its currency must be exchanged for gold upon the request of the holders. But as the legal tenders, when accepted in exchange for gold, by congressional enactment must be immediately paid out again, to be again exchanged for gold if the holders so request, and so on without limit, the supply of gold in the Government's possession has been kept at so low an ebb that fear has arisen of the Government's inability to maintain all its issues of currency as good as gold. To avert this fear, the Government has increased its in-

debtedness by several issues of bonds for gold, which the legal tenders have immediately again begun to drain. It is obvious that this and other evils of the immediate situation must be removed. But, without further reference to them, this chapter must return to the discussion of an ideal system of note issue.

The experience of the United States, as referred to in the preceding paragraph, makes important in that discussion the reply to the question—

Should the paper representatives of value which serve as currency be issued directly by the Government?

The determination from time to time of the amount of currency necessary for a nation's exchanges at all places within the territory of that nation would require the services of a large number of intelligent men, thoroughly organized; and that the currency might expand and contract according to the nation's needs, a governmental mechanism would have to be provided that

is difficult of conception, and its maintenance in efficiency would be more difficult. The losses occasioned by the errors of the officials would fall directly on the Government, and therefore entirely upon the whole people; and as the issue of currency in any event must be closely allied to the business of banking, if not always practically an incident thereof, the maintenance of a governmental organization for that purpose would impose a superfluous burden upon the people, as the banking organizations are capable of the same function.

As it is the banks that by making loans and discounts and cashing cheques can the most readily get notes into circulation and can profit by so doing; as it is the banks that come directly into contact with the business pulse of entire communities, it is evidently proper that banks should be empowered to issue representatives of value for use as currency, under such checks and restrictions as would assure the value of such representatives of value, as would insure the

expansion and contraction of issue in accordance with the law of supply and demand, not only in particular localities but throughout the nation. But as it is vital to the prosperity of the entire nation that its currency be incontestably and unquestionably secure, the guarantee of the whole people given through their Government should be the ultimate assurance of the security of their currency—that is, that the definite and specified value can at any time be obtained for any portion thereof. The checks and restrictions upon the issue of currency by banks should provide, therefore, that the liability for loss remain to the utmost possible extent with the banks, reducing to a minimum the responsibility, in any event, of the Government. To insure elasticity, these checks should be such as to necessitate the expansion and contraction of the currency in accordance with the law of supply and demand, by providing that should there be insufficient currency the banks would suffer loss, and that they also would suffer loss

should there be an overabundance. The issue of currency by banks under governmental regulation and control should secure to the people the benefits that flow from competition reacting upon enterprise, and the benefits that come from the solidity of governmental backing. It should avoid the evils of overissue and speculative issue into which private enterprise is apt to be induced by greed and overcompetition, and the evils of that inertness which is characteristic of operations conducted entirely under bureaucratic control.

That such a system is not impossible of attainment, may be disclosed by an examination of different banking systems in force at different times and places, each of which has been characterized by one or more of the points of excellence which have just been specified.

Under the Scotch banking system, which has bravely stood the test of time, circulating notes are issued directly against the assurance of the forthcoming of human effort

given by the drawers and indorsers of promissory notes. These promissory notes are paid with the results of the effort elicited by the circulating notes obtained in exchange for them. Although many of the old State banks are of unhappy memory, the Bank of Indiana and the banks of Louisiana were efficient in supplying currency for the commercial needs of their sections, and are of honourable record.

An existing banking system of admirable performance is that of the Dominion of Canada. Under the Canadian banking act, adventurers and light-weight financiers are debarred from establishing banks by the fact that a charter is not issued for less than a capital of five hundred thousand dollars, of which at least two hundred and fifty thousand dollars must be paid up, and the character of the applicants is subjected to close scrutiny by the Minister of Finance. Notes are a first charge against all the assets of the issuing bank, and there is a penalty for excessive issue. The shareholders are

liable for double the amount of their stock. There must be monthly returns to the Minister of Finance, and there is a rigid system of inspection. To insure the stability of the entire bank-note issue, each bank is required to keep on deposit with the Minister of Finance a sum equal to five per cent of its circulation as a contribution to the Bank Circulation Redemption Fund held by the Government to make good the notes of suspended banks. A most noteworthy and beneficent feature of the system is the practice of branch banking, the thirty-eight Canadian banks having four hundred and sixty offices. By their means the banking facilities of circulation, deposit, and discount are given not only to communities of considerable population, as in the United States, but even to hamlets remote from commercial centres. The competition of the different banks throughout their various branches, each striving for as large a proportion of the note circulation as possible, together with the governmental restrictions upon over-

issue, insure to the millions of people inhabiting the Dominion a supply of currency that, at all times sufficient for their needs, expands and contracts as the demand for it rises and falls. The practice of branch banking places the available funds of the entire Dominion at the disposal of the communities needing them at the times of need, whereas in the United States, because of the narrow sphere of operation of each bank, there is frequently an overabundance of currency at one point, while the healthy exchange of effort is retarded at other points because of a deficiency.

The "Baltimore plan" proposed in 1894 by the American Bankers' Association, and the bill introduced by the national administration in Congress in December, 1894, were in their essential characteristics substantially similar to the Canadian banking law, and it was the opinion then expressed of most competent financiers, that the adoption of such an act would have relieved the country of the most crying evils of the present

system, and have provided the foundation for a most wholesome currency hereafter. It is noteworthy that the provisions of the Canadian act were largely the outcome of the recommendation of the leading bankers of Canada called in conference by the Canadian Government, while financial authorities, among the highest in the United States, found members of both Houses of Congress deaf to their recommendations during the discussion of the administration measure, which was finally defeated. It, however, goes without saying, that the province of true statesmanship is often not to persist in seeking the immediate attainment of an ideal when it is unquestionable that opposition makes that immediate attainment impossible, but to better existing conditions to the extent that betterment may be possible.

The steps that followed the defeat of the administration bill are well known. There have been additional issues of bonds which may serve as the basis for additional bank-note circulation under present laws. A bet-

ter system will doubtless be adopted in time, but enlightenment as to the ultimate basis of representatives of value, and their use in forwarding civilization by effecting the exchange of human effort, will need to spread in great waves to the minds of many people before there is the adoption of an ideal monetary system, and before such a system will diminish the need for money changers by effecting exchanges of effort without their aid.

CHAPTER IV.

CONCERNING BIMETALLISM.

In nearly all of their characteristics gold and silver are of equal fitness for use as money. In the contest between the various commodities that at different times and places have served this purpose, their use as money, under the law of the survival of the fittest, has increased and extended. They have so far superseded the other metals in the performance of this function that for centuries a peculiar prestige has attached to them. They have been almost, if not altogether, regarded as the supernaturally ordained agents whereby the wants of man may be satisfied. And, indeed, they have been and even now are esteemed by many to be the sole and final object for which exertion should be put forth.

There is, however, as has been indicated in previous pages, an important respect in which gold and silver are not of equal fitness for monetary use. The supply of silver has always been vastly in excess of the supply of gold. For this and other reasons it has not been valued so highly as gold. That is, to obtain a pound of silver one would give much less than to obtain a pound of gold; conversely, a pound of silver would purchase much less than a pound of gold. But the supply of silver bore to the supply of gold through long periods a ratio so nearly constant that the ratio between their values varied but a few points in centuries. From the middle of the thirteenth to the beginning of the sixteenth century the ratio varied between the limits of 10·16 to 1 and 12·61 to 1; at exceptional times, however, rising so high as 9·33 to 1 and falling to 13·99 to 1. But even these apparently slight variations caused much mischief by disturbing values. Notwithstanding the incessant efforts of Italy, France, England, Spain, and other

European nations, through governmental enactment to preserve a steady ratio between the two metals, one or the other would flow from one country to another as either was undervalued or overvalued, the law of supply and demand completely annulling sovereign decree. "There was constant oscillation: change of ratio, and the least alteration of the condition of one metal, made it a lever for operations upon the other. These operations had no relation to the ebb and flow of commerce. It was a financier's opportunity of private gain, and for private gain the system was worked."

With the conquest of Mexico and the opening of the silver mines of Potosi "the value of silver produced suddenly rises to three times and then to four times that of its rival; and at once the ratio changes, bringing with it all its accompaniment of feverish instability and flux." From the middle of the sixteenth to the middle of the seventeenth century the ratio fell from 11·30 to 1 to 15·0 to 1. Body after body of mer-

chants and traders addressed petition after petition to their governments to do something to allay the monetary disorders that were violent and disastrous; but as government after government, in ignorance of the trend of the economic current, issued proclamation after proclamation, the decay of trade and ruin of towns became none the less. Wily financiers used the undervalued metal in the purchase of foreign goods which were sold at home for coins of the overvalued metal, and thus was reaped artificial profit. From the close of the seventeenth to the middle of the nineteenth century the ratio was fairly constant, varying from 14·5 to 1 to 15·93 to 1; then the production of gold in California reduced the ratio to 15·33 to 1, and it changed but little until about 1873. Since that period the vast increase in the output of silver, especially from our Western States, has decreased to the ratio to where it stands to-day at about 32 to 1, and apprehension is now being felt as to future disturbance that may be caused by the develop-

ment of the gold fields of Colorado, Siberia, South America, and Africa. During this century there has been still greater governmental exertion to maintain a fixed ratio, but without avail. The efforts of France to this end were ineffectual, and the ratio varied despite the combined action of the countries constituting the Latin Union. The experience of England and of Germany has been the same. "The idea that bimetallic action replaces one good metal by another, an equal weight of one metal for that of the other, a good undepreciated coinage of silver for a good undepreciated coinage of gold, or *vice versa*, is not borne out by a single instance in history. Bimetallic action always substitutes the less for the greater, whether weight or value, the more depreciated for the less, or the depreciated for the perfect standard coin."

There are still those who think that a definite ratio between gold and silver can be fixed and maintained by legislative enactment, but the possibility of such maintenance

is negatived by the experience of at least six centuries.

This is nowhere shown more clearly than in the valuable History of Currency by W. A. Shaw, from which the foregoing quotations of this chapter have been taken. The verdict is "clear, crushing, and final"—that is, the purchasing power of a pound of gold or a pound of silver in the markets of the world is never a matter of certainty for any extended period. This is not alone because of the fluctuation in the value of other commodities, but also because of the unequal fluctuations in the value of these commodities themselves. Twice in the earlier history of the United States it was attempted to establish a bimetallic currency upon a ratio which varied from the actual market ratio of the two metals not more than three per cent. In both cases the undervalued coins disappeared from our circulation. During the last six years the United States has been learning through still more bitter experience that legislation is powerless

to change the results that naturally follow the commercial fluctuations in the value of the metals. As stated on a previous page, the nation has, by the issue of bonds within the limit of two years, incurred an indebtedness that will approximate three hundred millions of dollars in the effort to maintain the ratio of 15·98 to 1.

The fewer fluctuations in the value of gold have led to the adoption of the gold standard for the commerce of the United States and the principal countries of civilization. From day to day, week to week, month to month, the value of an ounce of gold is measurably constant—that is, it will purchase about the same quantities of things in general, the fluctuation from day to day and week to week in the gold value of different commodities depending chiefly upon changes in the supply of and demand for them. He who accepts a gold dollar or other coin or paper that he knows can readily be exchanged for a gold dollar knows to a degree what he can obtain with that

dollar either to-day or to-morrow. Silver, not nearly so stable as gold, varies in value from month to month, from week to week, and even from day to day. Although our Government says that sixteen ounces of silver shall be equal in value to one ounce of gold, in the markets of the world sixteen ounces of silver are worth but half an ounce of gold; or, in other words, to obtain an ounce of gold one would have to exchange thirty-two ounces of silver. If our currency should drop to the silver standard, the dollar that yesterday was worth one hundred cents would to-day be worth but fifty cents. What its value would be to-morrow no one would know.

It was long claimed, by radical advocates of silver, that if the mints were open to the unrestricted coinage of that metal, as they are to the unrestricted coinage of gold, coins of the two metals would circulate together, and a double standard be thereby established. But it is clear that the silver coins would inevitably be accepted at their bullion

value only. The effort of the national administration to maintain a parity between the two metals, which has been strained even under a considerably restricted use of silver, would be broken by the deluge that its unrestricted use would bring. The four hundred and twelve and a half grains of silver that were worth one dollar in gold a generation ago would be worth but fifty cents in gold to-day. If four hundred and twelve and a half grains of silver were still moulded and stamped as one dollar, gold dollars would be worth twice as much as silver dollars: there would be two separate and distinct standards of value. If, notwithstanding this, it should be the edict of Congress that dollars of the two metals should circulate side by side, it is evident that gold dollars would be hoarded, sent out of the country or melted, for no one would pay a gold dollar for an article that could be purchased with a silver dollar worth but half as much. The currency of the country would fall to the silver basis.

To the word "bimetallism" so many different meanings have been attached that for one to say at this time that he is a bimetallist conveys no exact idea of his position. As the free coinage of both gold and silver would result in the expulsion of gold, those who believe in the unlimited and unrestricted coinage of both metals are in reality silver monometallists. As has been shown, the unlimited coinage of silver and its concurrent maintenance at a fixed ratio with gold is an impossibility. If a bimetallist assert that he is in favour of the coinage of silver under such limitations and restrictions that its value can be kept at a definite ratio with that of gold, the question of "bimetallism" evidently in his case has not to do with the maintenance of a double standard of value; for if the ratio between the coinage of the two metals can be constant, there necessarily is but a single standard of value. And as even the most pronounced advocates of the gold standard do not oppose the use of silver for subsidiary

currency, the question from this standpoint evidently has not to do with the abolishment of silver as money, but with its regulation.

During the mediæval period the struggles to maintain a definite ratio between the values of gold and silver were of direct and immediate consequence because the money of that period was almost entirely composed of actual gold and silver coins. When either or both metals became scarce, commerce languished notwithstanding that there were people willing to produce and eager to consume. Especially during the nineteenth century has grown the use of paper representatives of value by means of which the actual money stocks of both gold and silver have been rendered of much less consequence in so far, for example, as the internal commerce of such a country as the United States is concerned.

On previous pages it has been indicated that the basis of paper representatives of value has in reality become commodities of all kinds, property in general. And, as will

be indicated in a subsequent chapter, the law of supply and demand is bringing about a standard of value that depends neither upon coin nor bullion of either gold or silver. There are in circulation in the United States to-day silver certificates to the amount of $345,000,000. These certificates are simply warehouse receipts for silver, and are not redeemable in gold; but they circulate throughout the country, effecting exchanges of commodities the same as gold certificates or national bank notes effect such exchanges —that is, a five-dollar silver certificate may go round and round in the manner of a five-dollar national bank note as described in the preceding chapter. Force of habit and custom, after all, have much to do with the circulation of a medium of exchange. The great body of the people accept such money as is paid them without much regard to or knowledge of its ultimate basis, so that even if the monetary system of the nation should drop to the silver standard it might be perhaps within the limits of possibility that

much of the currency at present in existence in the United States by reason of its momentum would continue in circulation within national boundaries, and for an appreciable time effect the exchange of commodities according to their market values as determined by the law of supply and demand.

But as paper representatives of value are universally considered as such by capitalists, bankers, and financial authorities in general only to the extent that they represent the value of coins and are exchangeable for coin, it follows that paper currency representing the value of silver coin, from their standpoint bears to paper currency representing the value of gold coin the same relation that silver coin bears to gold coin—that is, a prime test of the value of a paper representative of value is the kind and quality of coin which can be obtained for it. Hence the significance of the United States Treasury being compelled to issue gold in exchange for the legal-tender paper cur-

rency. As our silver dollar containing four hundred and twelve and a half grains of that metal is to-day worth but fifty cents in gold, it follows that should the Government be unable to redeem this legal-tender currency in gold, but redeem it in silver, the monetary system of the country would fall to a silver basis. Gold coin and circulating notes issued directly against gold would go out of circulation, and the currency thereby be contracted to the extent of about six hundred and twenty-five millions of dollars. Secretary Carlisle expresses his opinion of what would ensue as follows:

"Every depositor in the savings and other banks, fearing that he would ultimately be paid in depreciated silver, would immediately demand the return of his money, and this would compel the banks to call at once for the payment of all the notes and other securities they had discounted for their customers, and the contraction of the currency would cause an increased demand for currency at the very time when it could

not be obtained, and thus the difficulty of the situation would be increased by both causes.

"The banks would be compelled to either suspend payments themselves or drive their customers, who are generally business men—the men who give employment to labour in every community—into bankruptcy at once. Who would profit by this condition of affairs? Nobody except the holders of gold and the owners of silver mines, the holders of silver bullion and the brokers and speculators in the stocks of silver-mining companies.

"The people who owe debts and are unable to pay them would be the ones to suffer most, while the people who owe no debts and have money on hand would be the ones to profit most. Every man in debt would be called upon to pay it promptly when due; there would be no more extension of old debts, or any new credits given, because no man could foretell what the money would be worth at any time in the future. In this

crash the labourer would be thrown out of employment by the failure or suspension of his employer."

And President Cleveland says: "Every one who receives a fixed salary and every worker for wages would find the dollar in his hand ruthlessly scaled down to the point of bitter disappointment, if not of pinching starvation. . . . In a self-invited struggle through darkness and uncertainty our humiliation would be increased by the consciousness that we had parted company with all the enlightened and progressive nations of the world, and were desperately and hopelessly striving to meet the stress of modern commerce and competition with a debased and unsuitable currency, and in association with the weak and laggard nations which have silver alone as their standard of value."

But in this connection there is an aspect of the relation between debtor and creditor when an obligation is liquidated that compels earnest consideration. To use the illustra-

tion of William Smart: When a sack of wheat has been borrowed in a besieged city, the debt is not fairly paid by the tender of a sack of wheat after the siege is raised and the community is in a state of peace and prosperity. Conversely, a debt incurred by borrowing a sack of wheat during a time of peace and prosperity is far more than justly liquidated by the repayment of the sack of wheat during a time of siege. This is an extreme illustration of the principle that the repayment of a loan, other things equal, should give the creditor the same purchasing power of things in general that the loan gave the debtor. Suppose that a loan of one hundred dollars at a given time would enable the borrower to purchase ten sacks of flour, ten pairs of shoes, ten yards of wool, ten pounds of nails, and so on and so on; but at the time of payment one hundred dollars would enable the creditor to purchase twenty sacks of flour, twenty pairs of shoes, twenty yards of wool, twenty pounds of nails, and so on and so on. It is

obvious that, other things equal, the creditor would be unduly benefited and the debtor unduly burdened. Now, it is a fact that, because of improved appliances and improved methods of production and distribution prices, measured by the gold standard, of nearly all the great staple products—clothing, shoes, furniture, grain, nails, tools, watches, drugs, glass, carpets—have in the last generation fallen in about the same degree that the price of silver has fallen. Therefore a silver dollar of four hundred and twelve and a half grains, taken at its bullion value to-day, will now buy about as much of the most needed results of human effort as a silver dollar of four hundred and twelve and a half grains twenty-five years ago, taken at its bullion value then, would buy of the most needed results of human effort at that time. Therefore a debt of one hundred dollars incurred twenty-five years ago, if paid to-day in gold, would inure to the creditor double the amount of benefit that the borrower obtained at the time the debt was in-

curred. Apply this reasoning to the indebtedness of the United States. It is claimed that, notwithstanding the great reduction in this debt since the war, the decrease in the prices of other commodities, as measured by gold, has been so great that the amount of gold necessary to pay the present indebtedness would purchase at this time as much of the staple commodities as gold to the total of the indebtedness at the close of the war would have purchased at that time. That is, although the indebtedness of the Government, as expressed in gold dollars, has been vastly reduced, that indebtedness, as expressed by universally desired results of human effort, has not been reduced at all. This is because the value of gold, which bears about the same relation to the value of things in general from week to week, month to month, and even from year to year, has radically risen in value in relation to the value of things in general from decade to decade during the past generation.

But as there are two sides to every question, so also are there two sides to every phase of every question. Wages, salaries, and incomes of all sorts, on the average, are far higher to-day than they were a generation ago. In many a pursuit, whether by the sale of his services or by the sale of commodities embodying the services of others, it is easier for a man in a given time to earn two hundred dollars in gold to-day than it would have been for a man in the same pursuit to have earned one hundred dollars in gold then. So that the payment of a debt of one hundred dollars incurred then, in its gold equivalent now, would work no injustice to him. But this is not the case in all pursuits, and it is also true that but few of the private or corporate debts now outstanding were incurred so long ago. But does the application hold good with the United States bonds, whose holders in many cases have acquired them by inheritance, and have throughout their

lives made no contribution to that totality of effort from which is poured into their purses an annual interest that constantly increases in purchasing power? And the original holders of these bonds may have procured them by means of the revenue obtained from land that had appreciated in value through no possible effort or foresight of theirs. Do not all these considerations point to the fact that a standard of value which may measure justice to all and injustice to none must be based directly upon the results of human effort? It is not for an instant to be conceived that such an ideal standard can be attained save through slow and painful development. But the theoretical demonstration of such an ideal may even at this time not be beyond the bounds of possibility. And there may be all the more need for such demonstration because of the increase, both present and prospective, in the production of gold, which may at some future time cause the fluctuations in the value of that commodity to be no less than

they have been in the value of silver. And, indeed, evidence is not lacking that we are gradually though unconsciously approaching such an ideal.

CHAPTER V.

ON OUR BANKING SYSTEM.

It is not to be supposed that many of the heads of the six million families in the United States whose incomes are less than six hundred dollars a year ever have in their possession more than a few dollars that are not required for immediate needs. A considerable number of those having larger incomes frequently are in command of money which they are not obliged to spend at once, and merchants and manufacturers and others who direct on a large scale the efforts of many employees are frequently in possession of considerable sums which they do not immediately need to use.

Especially among English-speaking people has grown the custom of depositing such

money in banks. Primary and elementary points of the banking problem are therefore the provision of receptacles for money that will withstand the forces of Nature and the assault of thieves; the securing of custodians who are honest and competent to receive and record deposits and to make payments with accuracy. That the strong and well-guarded vaults of modern banks meet the first of these points is evidenced by the decreasing list of bank robberies that are accomplished by physical force. Improved paper, improved ink, and figure perforators are making frauds by check-raising less frequent. The relentless pursuit and uncompromising punishment by the American Bankers' Association of forgers, burglars, and professional bank swindlers tends to deter even the most expert of these criminals from pursuing their vocations. The examination of bank employees' character, that has become the more searching and rigid as the operations of guarantee companies have extended, is causing defalcations

through the direct stealing of funds to become constantly fewer.

As banks have become more numerous, the use of cheques has increased. Between office and store, factory and warehouse, bank and bank, city and city, millions of these pieces of paper are continually in transit, furthering the exchange of human effort. The interlinking of banks as correspondents and the growth of clearing houses have formed a mechanism whereby their payment is effected with celerity.

But the actual deposits of a bank are increased by the proceeds of loans which it makes, and which are frequently placed to the credit of the borrower the same as though money had actually been deposited by him. For example: A bank discounts a note from A to B at sixty days for one thousand dollars. The proceeds, amounting to nine hundred and ninety dollars, may not be instantly needed by B; the amount is placed to his credit for him to cheque against —that is, nine hundred and ninety dollars is

placed to his credit on the books of the bank. As his cheques come in he is charged with their amount on the books of the bank. In this way he obtains from the bank the use of nine hundred and ninety dollars; or, to speak more accurately, the bank is the guarantor of representatives of value issued by him to the extent of nine hundred and ninety dollars. He has deposited no money. What he has deposited has been a promissory note—that is, a promise to produce the result of human effort of which he can dispose for at least the value of the note. As a bank's profits are largely made by discounting notes, a very considerable portion of the cheques issued against every bank, therefore, are not drawn against money deposited in it by the drawers of the checks, but against credits in its books, which are based upon the assurance of the forthcoming of the result of human effort. And therefore a vast proportion of all the cheques that flit between store and office, city and city, are based not upon cash directly, but upon the

guarantee of a bank that it will accept cheques to the value of the result of human effort, the assurance of the production of which has been discounted or purchased by it and held as the basis for its guarantee.

In the case specified, the exhaustion of his credit by B might be somewhat as follows: At the end of the week, to pay his employees, he may draw two hundred dollars from the bank. In this instance the bank advances to him out of that portion of its deposits in actual money which it retains to meet current demands, coins, or circulating notes, to the amount of two hundred dollars. B may have employed C, a contractor, to make some repairs at his place of business, and he gives C a cheque on the bank for ninety dollars. C also has an account at the bank and deposits the cheque to his credit. The bank on its books charges B with ninety dollars and credits C with ninety dollars. B's debt to C has been paid without the use of money at all, the bank, in this instance, acting

as a register of the exchange of human effort. B may have purchased goods in New York from X Y & Co. to the value of three hundrod dollars. He delivers a cheque to his bank for that amount, and the bank delivers to him a draft on its correspondent bank in New York for three hundred dollars. B mails the draft to X Y & Co., who have an account at the bank on which it is drawn, and deposit it in that bank to their credit. This bank charges the original bank on its books with three hundred dollars, and credits X Y & Co. on its books with three hundred dollars. No money has been used in the entire transaction. Representatives of value based upon the note of A to B have caused the transfer of credits in the books of the original bank and in the books of the New York bank.

These instances indicate the manner in which, by the aid of the banking system, the exchange of the results of human effort is promoted to an extent far transcending the possibilities of exchange effected only by the

use of coins or by the direct representatives of coins. By means of cheques and drafts based on book credits in banks that are based on the assurance of the result of human effort as given by promissory notes, a very considerable portion of the commerce of civilization is forwarded, the proportion of exchanges effected by coins or the direct representatives of coins being in constantly decreasing ratio to the total value of exchanges. But, as when there is a scarcity of coin among the members of a race who have progressed to the use of coin, the exchange of effort between them is hindered and reverts to barter; as, when there becomes a scarcity of circulating notes among a nation accustomed to their use, commerce and manufacturing are restricted because, in the absence of other expedients, exchanges are necessarily conducted by coin, so in our banking development, when promissory notes and other securities are regarded with distrust by the banks upon which is devolving the most of the burden of directly or indi-

rectly supplying the money needed in a community, there is a restriction of the exchange of human effort. Manufacturing and commerce are retarded, and are forced to the exclusive use of coins or their direct representatives. A most important point of the banking problem, therefore, is the regulation of discounts in such a manner that the commerce of a nation may proceed with regularity, and its development be continuous and orderly.

Suppose that the money actually deposited in a bank amounts to one hundred thousand dollars. The bank knows from experience that it will not need to keep more than fifty thousand dollars of this to meet current demands, and therefore discounts notes to the extent of fifty thousand dollars. It has received money to the extent of one hundred thousand dollars, promises to pay money to the extent of fifty thousand dollars, and made itself liable to the extent of one hundred and fifty thousand dollars—that is, it is responsible for the payment of

cheques to an amount fifty per cent in excess of the amount of money which it has received. A definite amount of money is made the basis of liability for an amount one and a half times as great. But a bank discounts not only from its actual deposits, but also from its surplus of accumulated profit, and such of its capital as is not invested in real estate, bank building and fixtures. Suppose that the money actually deposited in a bank amounts to a hundred thousand dollars, that it has a surplus of two hundred thousand dollars, and its capital in excess of the amount invested in bonds, real estate, and banking house is two hundred thousand dollars; its funds available for discount thus amount to five hundred thousand dollars. As the only legal restriction upon the extent of a bank's discounts is the requirement that it maintain a reserve in actual money amounting to twenty-five per cent of its deposits in the case of a reserve city bank, and to fifteen per cent of its deposits in the case of a country bank, it is

possible that by keeping on hand a hundred and fifty thousand dollars in actual money in the case referred to, which, for example, may be considered that of a bank in a reserve city, the bank's statement of deposits may show six hundred thousand dollars. Of this a hundred thousand dollars is actual money received as deposits, and five hundred thousand dollars the proceeds of discounted notes. And thus it is evident how it is possible for by far the greater portion of the exchanges of the country to be effected by representatives of value based upon the assurance of the production of human effort contained in promissory notes. It must be recognized that this furthering of the exchange of the result of human effort may be of vast benefit to the public as a whole. For example, a Southern planter, with ripening acres of cotton, may not have the means wherewith to pay for the picking, cleaning, packing, and freight to the place of market. The proceeds of a note discounted at a bank will provide him with the necessary means, and

he pays the note with the money obtained from the sale of the cotton. Likewise with an elevator owner in Chicago purchasing grain for export; or a coal operator of Pittsburg who desires to send fuel by river to the Southern, or by lake to the Northwestern markets; or a merchant with store, clerks, and knowledge of the wants of his section may give his notes for needed goods, which he pays from the proceeds of their sale; or a man, far-sighted, energetic, and careful, may perceive opportunity for profit if he could obtain the requisite material or the requisite tools or requisite help of other kinds. By having a note discounted he obtains the requisite help and pays the note when the opportunity has been realized. In these instances, the discount of notes has contributed to the production and distribution of needed commodities. The producers have obtained profit, their employees have obtained wages; railways, vessels, and factories have been used with emolument to their owners and employees, and thousands

of people have been placed in possession of food, fuel and clothing.

But where there is a chance for profit, there also is a chance for loss. Flood may ruin the cotton crop, the markets may become so glutted that neither grain nor coal can be sold except at a greatly depreciated price; the merchant may be stricken in health; even the energetic, careful, and far-sighted man may have miscalculated his opportunity. In such cases, the result of human effort to the value of the notes may not be forthcoming; the assurance fail of performance; the notes can not be met. When representatives of value are based upon the promised result of human effort which does not materialize, they are worthless unless there is an ultimate basis of realized result. This realized result may be the property of signers or indorsers taken by the bank to make the value of the notes good; it may be of the capital or surplus of the bank or property of the stockholders who are liable for double the amount of their holdings; or,

in the last resort, the loss falls upon individuals of the public in general.

Concerned, therefore, in the conduct of a bank are the stockholders, who profit by its prosperity and share its losses; the depositors, whose funds are in its custody, and the public in general; and an important phase of the banking problem is presented by three points: first, the necessity for a bank to keep on hand sufficient actual money wherewith to meet cheques and drafts upon it that must be paid in actual money; second, the necessity for furthering the exchange of human effort and thereby making as large profits as possible by maintaining as large a line of discount at all times as may be prudent; third, to make no loans except upon adequate security.

When a bank discounts a note, its first consideration, of course, is the probability of the note being paid—that is, it desires to be reasonably sure that the transaction which the note covers will yield enough to cancel it. To this end it is obliged to rely largely

upon the reputation for ability and honesty of the drawer and indorser, for it can not enter into the details of every transaction; but a general knowledge of prices and markets is useful, that it may not be overflooded with paper in any particular line of industry that may be offered by the oversanguine or the knavish. And the attempts to obtain discounts by the oversanguine and the knavish are not limited to the offer of paper in excess of the amount abundantly necessary to cover the movement in any particular line, but they frequently exchange notes, or in other ways obtain paper from a colleague which represents no legitimate business transaction, but by the discount of which they obtain needed funds.

As unpredicted circumstances may, at unforeseen times, cause unusual demands to be made upon a bank's deposits, it follows that a bank's loans should not be for long periods. In actual practice the average duration of notes is sixty days, and banks ordinarily do not like to accept paper running

longer than four months under any circumstances. Country banks, however, often discount notes at six months and sometimes accept notes, drawn against particular agricultural products, that extend over one year; in such cases discount is frequently not exacted in advance but interest is claimed at maturity. Different notes coming due at different times bring into a bank day by day funds which it can use to discount new notes, or which it can retain in case of contingency requiring it to keep more money on hand than usual.

It is evident that a bank should not only be reasonably certain that the prospective exchange of effort which is the immediate cause of a loan should produce enough under ordinary conditions to cancel it, but that in case of contingency that is disastrous to the products immediately concerned the property of the signers and indorsers of the note not covered by other obligations be sufficient to liquidate it. But in these days, when a concern's property is not always

visible and its incumbrances are frequently concealed, a knowledge of its actual resources is difficult to obtain. It has happened that financial tricksters, by operations in several banks, knowledge of each of which has been kept from the others, have gained possession of funds far beyond the extent to which their resources entitle them, and in such a case, when any one bank suspects that it is being victimized, there is the temptation for it to conceal this knowledge from the other banks, that the unworthy customer may not be prevented from obtaining loans from them, wherewith he can repay the advances made by the bank which has begun to suspect him.

Perhaps the possibilities of unwholesome financiering which must finally result in loss to the banks and disturbance to all the communities concerned can best be illustrated by a definite example traced throughout its ramifications.

From a region rich in deposits of coal a railway extends to docks where coal is loaded

into vessels for shipment to remote markets. A corporation controlled by a coal operator and the president of the railroad leases the docks and engages in the purchase and shipment of coal. The railway is financially weak, and the corporation without working capital. But the corporation buys large quantities of coal, giving four months' notes that aggregate thousands of dollars in payment therefor; it gives four months' notes to the railroad company, aggregating thousands of dollars, in payment for the freight to the docks. The coal producers, to obtain ready money wherewith to run their mines, discount the notes obtained from the shipping company in their banks. The railroad company, to obtain ready money wherewith to meet its expenses, discounts the notes obtained from the coal company for freight in its different banks. It is the intention of the coal-shipping company to pay the notes for coal and the notes for freight when the coal which it has shipped is sold, but, finding it easy to issue notes, it buys and ships

more coal than it can sell at remunerative prices, or for immediate returns, and when its notes are due it can not pay them all. To retain its credit with the coal producers, it pays the notes given to them, but it then can not pay all the notes given the railroad company. To meet the situation, the railroad company and the coal company exchange notes—that is, for example, suppose there be notes amounting to forty thousand dollars of the coal company to the railroad company coming due, and the coal company can pay but twenty thousand dollars. To meet the other twenty thousand dollars, which may be in two notes of ten thousand dollars each, which have been discounted by the railroad company at the P National and the Q National Banks, the railroad company gives the coal company two notes each for ten thousand dollars, and the coal company gives the railroad company two notes each for ten thousand dollars. One note of the coal company to the railroad company is discounted at the R National and the other at

the S National Bank, and the treasurer of the railroad company, by that part of the transaction, is in possession of twenty thousand dollars, less the discount, which he badly needs to help pay interest on an overburden of bonds and bills and long-overdue wages to employees. One note of the railroad company to the coal company is discounted at the T National and the other at the U National Bank, and the proceeds, amounting to nearly twenty thousand dollars, in connection with the twenty thousand dollars already in its treasury, enable the coal company to meet the maturing notes to the railroad company for forty thousand dollars. The bank in which they are paid and the P National and Q National Banks at which they have been discounted have their belief in the ability of the coal company to meet its obligations strengthened, because it appears that the coal company is paying its notes. But this is not really so, for only one half of its original notes has been paid, and the notes ex-

changed, representing a liability of forty thousand dollars, leave the amount of discounts in various banks the same as when the original notes of forty thousand dollars of the coal company to the railroad company were discounted.

Suppose a similar transaction to be undergone with each of three sets of notes given by the coal company to the railroad company, each set originally amounting to forty thousand dollars. Instead of the original indebtedness of one hundred and twenty thousand dollars of the coal company to the railroad company, there is created by the exchange of notes for half that amount a joint liability of the coal company and the railroad company for one hundred and twenty thousand dollars. The coal has all been sold, but how is it with the coal company? How is it with the railroad company? And how is it with the banks that have discounted their notes?

The coal company continues business, giving new notes to coal producers for coal

purchased, and new notes to the railroad company for freight. It is responsible not only for these notes, but for the previously issued notes. Because of this burden, it is obliged to increase its shipments of coal, and therefore to extend its markets. To do this it is obliged to undersell other coal-shipping companies, and therefore to dispose of coal at prices that do not yield enough to pay the notes given coal producers and the notes given the railroad company. The coal producers must be paid; but such remaining funds as it can obtain can not pay the increasing mass of notes given the railroad company, which mature at shorter and shorter intervals. There is more juggling of notes through banks, and the mutual liability of the coal company and the railroad company rolls up, like a big snowball pushed by schoolboys. The coal company must stop business or its shipments must increase. To stop is to acknowledge its bankruptcy. To increase shipments necessitates still further expansion of markets. It builds docks

at the places of market, and organizes another company to operate them.

Although the stock of this receiving company is controlled by the same men that control the stock of the shipping company, the shipping company sells coal to it, and takes notes of the receiving company in payment therefor. These notes the shipping company discounts at banks. Notes have therefore been given by the shipping company to the coal producers for coal, and notes for the same coal have been given the shipping company by the receiving company. But the shipping company and the receiving company are controlled by the same men, and neither have working capital. The notes can not be met. There is more juggling through the banks, and the snowball grows. The shipping company must sell coal; the receiving company must sell coal. They cut prices; their competitors cut prices to retain their trade. The cutting continues until the wages of the miners who dig coal are cut; they are cut and cut.

Coal is piled up on the docks. A great panic sweeps over the country. The shutting down of mills and factories diminishes the use of coal. The traffic of the railroads falls off, and their locomotives do not burn so much fuel. There is an oversupply of coal, and the miners, whose wages have been reduced to a starvation basis, are without work even at those wages. All of them are poor, and the most of them are ignorant of the remote sources of the wrongs that are undoing them. Their discontent grows, and they strike. Their children are without shoes, and their stomachs are empty. Their discontent gives rise to mutterings. Here a coal tipple is burned, there an operator mobbed. The operators employ deputy sheriffs to protect their property, and threaten to call on the Governor for the aid of the militia in preserving peace. The miners are whipped and return to work.

The railroad company and the shipping company and the receiving company push the growing snowball of their indebtedness

before them. By juggling, twisting, scheming, and the manipulations through the banks they are kept afloat.

What finally happens? The railroad company, overburdened with debts and robbed by its officers, goes into the hands of a receiver.

The great snowball of indebtedness rests upon the coal company; its notes are scattered far and wide in the banks that have discounted them. What can the banks do? Get judgment on the notes and take the property of the coal company. But the coal company owns next to nothing. Its docks are leased, its cars are leased, its coal land is leased; the lessors have the first claim, the banks would get nothing. What can the banks do? Allow the coal company to issue bonds, take bonds to the value of the notes which they hold, and allow the coal company to continue? If it has so lamentably failed in the past, what can be expected of the future? The banks are between the devil and the deep sea.

How did they get there? Because they discounted notes assuring the forthcoming of the result of human effort to the extent that the signers and indorsers failed to produce. Had the banks been fully alive to the conditions of the coal markets, they certainly would not, in the first place, have discounted notes covering supplies of coal that far exceeded the demand, and the sale of which affected the prosperity of other coal companies to such an extent that cutting of prices finally reacted upon the prosperity of every community concerned in the coal industry. But, if it be urged that it is asking too much of any bank to keep track of the intricacies of every business, that a bank is safe in discounting the notes of concerns that always pay their notes, there is the reply that these concerns did not pay their notes. By manipulation they apparently paid them, and therefore the system under which such manipulation is possible is fundamentally wrong.

Under the Canadian banking system,

with its large banks, each having enormous capital and branches throughout the Dominion, it is practicable to enforce the rule of "one concern, one bank"; each customer must render a confidential statement to his bank from time to time of the exact condition of his affairs, of his assets and liabilities, and it is to the interest of his bank to accord him the fullest accommodation that his business will justify. Its enormous resources enable it to thus accommodate all its customers. It is evident that under such a system such juggling as that instanced in the foregoing illustration could not have been carried on. Many of the banks of the United States have blank forms which they submit to offerers of paper for discount, the filling up of which completely discloses the condition of their affairs, the extent of their assets and liabilities in every shape and form. Had such statements been required of the coal company and the railroad company by each of the banks before discounting their notes, the possibility of ruin entailed by

their reckless procedure would certainly have been averted; but men, shrewd, plausible, and unscrupulous, have a way of quieting the fears of banks and evading inquiries that are searching.

Under the Canadian system the few banks, each with large capital and many branches, find it to their interest to employ as managers men of character, foresight, and ability, and they are not allowed to participate in any way in the borrowing of money from their banks. In the United States each city has its numerous banks, no one of them firmly connected in management with any other bank. The officials often are men of minds not of the broadest and judgment not of the most accurate, who have attained their positions, perhaps, through influence of one kind or another, and sometimes they are in direct partnership with the men who have offered paper to the bank for discount, the recommendation of action upon which comes within their province.

Under the Canadian system there are re-

strictions upon the amounts which directors of a bank can borrow, and their heavy liability for losses incurred by their bank leads them to exercise much caution in accepting paper. In the United States many bank directors seek their positions almost exclusively because of the facilities they thereby obtain for borrowing, and by their accommodating each other the legitimate business of the bank and the community is prone to suffer.

Under the Canadian system there is an examiner for each large bank, who inspects its operations from time to time to ascertain not only that its status is sound from a book-keeping and arithmetical standpoint, but that it grants discounts on sound principles, and that the discounted paper held by it is good. In the United States there are national bank examiners who, representing the Comptroller of the Currency, enforce the provisions of the National Bank Act which restrict loans to any one person or firm to ten per cent of a bank's capital, which limit loans to the officers of a bank, prevent the continuance

of loans on collateral that has become worthless or inadequate, prohibit the making of loans on real estate, and prohibit the carrying as assets of loans that are past due and unpaid. But their duties do not embrace a thorough and rigid scrutiny of the soundness of all notes discounted. Suppose that in the foregoing example of the notes exchanged by the railroad company and the coal company, the bank examiner, finding notes of these companies' issue for considerable amounts scattered among the P, Q, R, S, T, and U national banks, should have had his suspicions awakened as to the solvency of the coal company. All the communities concerned evidently would have been benefited had he communicated these suspicions to the different banks in interest that they might have made a searching examination of the affairs of the coal company. Under the present status he is not only not bound to so communicate them to the banks in interest, but it is a question if he is not bound not to do so.

CHAPTER VI.

ON THE STANDARD OF VALUE.

When it is stipulated that the wages of a house servant shall be three dollars a week, does either mistress or maid think or care anything about either the gold or silver standard? Three dollars has a generally understood purchasing power; it is customary for mistresses to pay and maids to receive three dollars a week. The maid specifies a willingness to put forth such efforts as other maids, and for the result of these efforts the mistress is willing to pay the stipulated sum—that is, a measure of the maid's weekly efforts is three dollars, and this measure is determined by the law of supply and demand. It is likewise with labourers who engage to work for one dol-

lar a day; clerks for ten dollars a week; skilled workmen for twenty dollars a week; brainy and energetic managers for ten thousand dollars a year. The wages of the labourer or servant, or the salary of the clerk, are, as a rule, as little as can be paid for the work which each performs; likewise with the fees of the physician, lawyer, writer, or painter; and likewise, labourer, servant, clerk, musician, lawyer, painter, or writer, as a rule, endeavours to obtain the highest price for his services, or the result of his efforts.

And the cost of commodities is the sum total of the reward of the human effort which has contributed to their production and delivery at the place of need. You purchase a pocket knife in a hardware store for one dollar. From the time the crude materials constituting that knife lay imbedded in the earth, the efforts of thousands of workmen, directed by hundreds of employers, were necessary to put them in the form in which they are transferred to your

pocket. Although at each stage of production the material was but an infinitesimal portion of similar material undergoing the same processes, the dollar you paid for the knife measures the accumulated wages, profits, and rent, all paid to reward the effort of hand or brain expended in its production and the transfer to you. As production is confined to the best adapted localities; as new material is utilized; as the contributory appliances and methods become the more economical, and therefore result in greater output with less effort; as particular functions are placed in the charge of those best fitted to their performance—the price of commodities is decreased. To name but one example of hundreds: pig iron that was produced sixteen years ago at a cost of eighteen dollars per ton, can now be produced at a cost of ten dollars per ton. Furnace practice has improved, and the cost of all the materials entering into the production of iron has decreased, with the result that all the structures and appliances

into the production of which iron enters can be produced and sold for less—that is, the amount of human effort needed to produce a ton of pig iron in 1896 is far less than it was in 1880; therefore the cost is less. This cost of production of a ton of pig iron is a factor that enters into the determination of the selling price. But in the determination of the selling price the demand for pig iron is also an important factor. Suppose at a particular time the cost of making pig iron was fifteen dollars a ton, but that the demand for that material was so great that it could not be met by the furnaces in existence. Builders of railways and locomotives, makers of implements and tools, builders of bridges and houses—all needing iron to forward their undertakings entered into competition to secure such share as would satisfy their needs. Under this competition the price of pig iron advances to twenty, twenty-two, twenty-five dollars per ton—the demand acting almost alone in determining the price. The high prices caused by the great demand

for pig iron cause new furnaces to be built. The supply of iron vastly increases, and its users do not need to bid so high to obtain the quantities which they need. There comes a lull in the building and equipping of railways and in the construction of machinery. The demand for pig iron falls off; down goes the price to eighteen, sixteen, and even to fifteen dollars a ton. Furnaces that do not care to do business without making money go out of blast. Other furnaces, impelled by other considerations, may perhaps continue to make pig iron, even although it can not be sold except for fourteen, thirteen, or twelve dollars a ton. But continuance at a loss will result in bankruptcy, or it may force the discovery and adoption of more economical appliances and methods which will reduce the cost of production. The persistence in the sale of commodities at less than the cost of production in one way or another brings about the condition under which the cost of production again becomes a principal factor in determining the selling

price. So also with all services or results of services for which money is exchanged. The ebb and flow of supply and demand tend continually to produce a condition of equilibrium between producer and consumer, and therefore the law of supply and demand tends continually to equalize the reward for the same quantity and quality of the result of effort. The merchant who pays to one clerk a greater salary than to another whose services are of equal value incites that other to demand an increase of salary. A class of labourers receiving wages less than those of other labourers to whose services they think their own equal are incited to demand equal wages, and so throughout all society.

As it is the relation of human effort to result and the demand for that result which determines value, and as human effort is a manifestation of force, the ultimate standard of value must be a unit of force. The determination and adoption of such a standard are at present impracticable, and may so remain for generations to come. But if it

be admitted that our civilization and its advancement depend upon the intertwining of human effort, that that which feeds, clothes, and houses the human race is the totality of human effort, it follows that the value of that totality depends upon the results of the exertions put forth by the entire population, and the desire and capacity of the entire population to absorb those results. The mechanism of civilization is held together as the solar systems are held together. Planets and satellites are held in place and motion by a central sun, and the system which they form is held in place and motion by interreaction between it and other suns and systems. So the heads of firms and corporations hold in place and action their employees, and firms and corporations are held in place and action by other firms and corporations. Between employee and organization, between organization and organization, between employees of one and the employees of other organizations, there is the continual action and reaction of human effort, varying in

kind and degree, but, by virtue of its results, binding all together in a progressive whole. Representatives of value measure and make reciprocal the efforts of the various members of this great whole. Under an ideal system representatives of value, therefore, would be based directly upon the results of human effort, and the unit of value would be a given quantity of effort of given quality in relation to a given quantity of demand.

During the period that has witnessed the development of commerce it has often been felt, even when it has not been directly perceived, that any coinage or currency has but imperfectly fulfilled the functions both of a medium of exchange and a standard of value. The increase in the use of paper representatives of value, apparently based upon coin, is removing the evils that flowed from an insufficient supply of currency. As the exchange of human effort has therefore had freer play, it has become perceptible that the value of commodities depends upon the amount of human effort expended, un-

der the law of supply and demand, in their production, and not upon the amount of either gold or silver, or both, that at any time may be in existence. The inadequacy of either gold or silver as a just and absolute standard of value, although it has not entered to any considerable degree into the deliberations of statesmen who are obliged to deal with things as they are, has been a favourite topic with political economists. Many devices have been proposed looking toward the attainment of a just and absolute standard. Conspicuous among these is the multiple or tabular standard of value, suggested by Lowe and Scrope and indorsed by Jevons. This proposition is that an absolute standard of value could be obtained by the adoption of a unit of value, which would at any time, purchase a certain definite amount of different commodities, comprising a variety of staples selected in fixed proportions, so that the fluctuations at different times in the value of certain commodities would be offset by the fluctuations in

the value of the others, the value of the aggregate remaining the same at all times. The carrying out of this plan would necessitate a governmental commission which would publish periodical statements of the average increase or decrease in the prices of various commodities, so that payments could be adjusted accordingly. "Thus, suppose that a debt of one hundred pounds was incurred upon the 1st of July, 1875, and was to be paid back on the 1st of July, 1878; if the commission had decided in June, 1878, that the value of gold had fallen in the ratio of 106 to 100 in the intervening years, then the creditor would claim an increase of six per cent in the nominal amount of the debt." But, *vice versa*, if the commission had decided that the value of gold had risen in the intervening years, the debtor would claim a decrease in the nominal amount of the debt. The method of procedure of such a commission has been worked out in detail by several writers. It can not be said that conditions are ripe for

the experiment, nor, because of the constant and unequal fluctuations in the expense of production and distribution of various commodities, can it be confidently affirmed that such a plan would be successful from the outset. But its adoption might, perhaps, be the first of a series of steps whereby a just equilibrium in the relations of debtor and creditor might be established and maintained.

The adoption of such a plan might, perhaps, be the first of a series of steps that would lead to the adoption of an ideal monetary system, under which the representatives of value that measure and reward human effort would be based directly upon the value of human effort, preserving a just relation between the quantity and quality of its result and the demand for that result.

But even the adoption of an ideal monetary system might not entirely deprive the precious metals of a positive monetary function. Until one such system were adopted by all of civilization gold would be needed

in international exchange; and for various reasons, perhaps, whether the basis for circulating notes were the assurance of the result of human effort as given in promissory notes, or whether it were stocks, bonds, or other securities depending for their value upon the result of human effort, it might now and then happen that the holders of the notes might want to make a test of their ultimate security. The issuing source to preserve confidence in the notes emitted by it must be able to satisfy this test. As the medium of exchange that antedated notes and that has not been entirely superseded by the issue of notes is coin; as coin has a definite intrinsic value, which notes have not; as coin is durable, portable, and readily exchangeable—it follows that a natural and practical immediate test of a note's security is the readiness with which it may be exchanged for coin. To this end, when authority to issue notes has been given, it has usually been required that specie in a certain minimum ratio to the value of the note cir-

culation be held by the issuing source for the redemption of notes presented for that purpose. The facility for the exchange of notes for coin may be not only a test of their security, but, as in the Dominion of Canada, a means whereby through the competition of various banks the note circulation may be contracted as need for it is lessened, each of the Canadian banks being required to redeem daily such of its notes as are presented for that purpose.

But it should be perceived that this test of a note's security would not imply that the coin received in exchange has any mystical qualities peculiar to money. Coin would be the test, simply because of its convenience for the purpose. Long ago were dethroned the naiad and dryad of stream and tree: we have found that the current of stream and the current of sap flow alike in obedience to the eternal law enriching both land and sea. It is high time that we should dethrone Money from the pedestal of vain mythological meaning, and learn that money is

but the handmaid of human effort, that, flowing from hand and brain, adds to the fulness of our lives and makes fertile the soil of achievement that posterity may enrich again and again.

CHAPTER VII.

SUMMARY.

FROM the propositions that the maintenance and forwarding of civilization depend upon the exchange of human effort, and that money is the means whereby human effort is exchanged, is derived the corollary that there should be at all times sufficient money to further the exchange of human effort up to the full limit of that production and consumption which at any time is determined by the law of supply and demand. There should be sufficient coin for the small retail transactions, and as the coin necessary to this end is measurably constant in quantity and governmental issue tends to preserve uniformity in the quality and cognizability of coins, there is probably no reason that governments should not con-

tinue to be the sole sources whence coins are emitted. There should be sufficient paper currency for the transactions of greater value effected by its use. As the needful amount of such currency is variable, as its supply in adequate amount and its expansion and contraction are difficult if not impracticable under governmental issue, but these requisites can be fulfilled under a well-adjusted banking system, it follows that the power to issue such notes should lie with banks under such restrictions as will assure their security and proper expansion and contraction in quantity. And it follows that under a well-adjusted banking system banking facilities will be provided for all communities whether near to or remote from business centres. In this manner can be provided that sufficiency of currency which fallacious reasoning leads many who are struggling for a livelihood, especially the farmer and the labourer in the South and the Southwest, to believe can only be obtained by the free coinage of silver.

As gold and silver, which for centuries have served as the medium of exchange, have undergone fluctuations in their relative values which have been especially frequent and marked in recent years, and as all paper representatives of value are generally so regarded only to the extent that they are based upon and redeemable in coin of one metal or the other, it follows that, so long as coin is considered to be the basis of money, the stability of value which is necessary to commerce can the more nearly be maintained by the use, as the standard of value, of that metal the value of which is the least subject to fluctuation. That metal at present is gold.

As under the banking system of the United States different banks and ultimately the public in general are often subjected to misfortune caused by the extravagance of the unwise and the cupidity of the dishonest, it follows that action should be taken toward the improvement of that system that it may the more satisfactorily perform its

functions, which become the more important as commerce increases and civilization advances. In this connection the Canadian banking system, which resulted from the deliberations of financiers of acknowledged eminence, deserves careful attention.

As political economists of high authority have admitted the inadequacy of either gold or silver as a just and absolute standard of value; as there is reason to believe that in the future gold will be less fitted for this purpose than at present, the means by which a just and absolute standard may be attained should become a matter for earnest consideration, even although such consideration result but in the theoretical demonstration of a standard the adoption of which may be practicable only in the remote future.

THE END.

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